

Express Mail EE159 579US

#3
10-2-58

Sheet 1 of 2 59/123253 PRO

07/27/98

Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket No. (Optional)
D-5639-C4Application Number
TBAApplicant:
Hutchens et al.Filing Date:
July 24, 1998Group Art Unit
1313

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5	0	7	8	1	3	5	01/07/92	Caprioli et al.	128	632	05/31/89
	5	1	7	1	9	8	9	12/15/92	Williams et al.	250	288	01/24/92
	5	1	1	8	9	3	7	06/02/92	Hillenkamp et al.	250	282	08/21/90
	3	8	9	6	6	6	1	07/29/75	Parkhurst et al.	73	61.1	01/09/74
	4	0	2	2	8	7	6	05/10/77	Anbar	424	1	06/21/73
	4	2	9	6	3	3	2	10/20/81	Hill	250	570	12/28/79
	4	4	5	4	2	3	3	06/12/84	Wang	436	525	12/17/81
	4	7	0	5	6	1	6	11/10/87	Aindresen et al.	204	299	09/15/86
	4	9	0	2	6	2	7	02/20/90	Kidwell	436	112	02/05/85
	5	0	0	3	0	5	9	03/26/91	Brennan	536	27	06/20/88
	4	9	8	8	8	7	9	01/29/91	Zare et al.	250	423	02/24/87
	4	6	8	6	3	6	6	08/11/87	Stuke	250	287	11/21/85
	5	1	2	4	2	6	7	06/23/92	Humpel et al.	436	518	01/10/86
	5	5	4	7	8	3	5	08/20/96	Koster	436	173	01/06/94
	4	6	9	4	1	6	7	09/15/87	Payne et al.	250	282	11/27/85
	4	2	9	5	0	4	6	10/13/81	Gruter and Leineweber	250	287	09/08/78
	5	0	2	9	9	1	9	05/11/93	Turteltaub et al.	424	1.1	04/26/91
	5	0	4	5	6	9	4	09/03/91	Beavis et al.	250	287	09/27/89

FOREIGN PATENT DOCUMENT(S)

	DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
												YES	NO
	0	0	8	4	0	8	6	07/27/83	EPO			X	
	0	3	3	3	9	1	2	09/27/89	EPO			X	
	2	2	3	5	5	2	8	03/06/91	GB				X
	2	2	3	5	5	2	9	03/06/91	GB				X
	2	2	3	6	1	8	4	03/27/91	GB				X
	9	6	3	7	7	7		11/28/96	PCT	39	53		X
	9	6	4	0	8	8	8	12/19/96	PCT				X
	9	2	1	3	6	2	9	08/20/92	PCT	59	44		X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
<i>JX</i>	Karas, M. and Hillenkamp, F., Laser Desorption Ionization of Proteins with Molecular Masses Exceeding 10,000 Daltons, <i>Analytical Chemistry</i> 60:2299-2301 (1988).
	Rivera, A., A Summary Statement: Probes for Affinity Mass Spectrometry of Phosphoproteins, April 16, 1994
	Nelson et al., Mass Spectrometric Immunoassay, <i>Analytical Chemistry</i> 67:1153-58 (1995)
	Beavis, R. and Bridson, J., Epitaxial Protein Inclusion in Sinapic Acid Crystals, <i>J. Phys. D: Appl. Phys.</i> 26:442-447 (1993).
	Strupat, K. et al., 2,5-Dihydroxybenzoic Acid: A New Matrix for Laser Desorption-ionization Mass Spectrometry, <i>Int'l Journal of Mass Spectrometry and Ion Processes</i> , 111:89-102 (1991).
	Karas, M. et al., UV-Laser Desorption/Ionization Mass Spectrometry of Femtomol Amounts of Large Proteins, <i>Biomedical & Environmental Mass Spectrometry</i> 18:841-843 (1989).
	Nelson et al., Mass Spec. Analysis of a Trans.-metal-binding Peptide Using MALDITOFMS: A Demonstration of Probe Tip Chemistry, <i>Rapid Communications in Mass Spec.</i> 6:4-8 (1992).
	Dwyer, J. and Botten, D., A Novel Sample Preparation Device for MALDI-MS, <i>International Laboratory</i> 13A-13F (1997).
	<i>American Biotechnology Laboratory</i> , February 1994 cover, cover-page 2 (1994).
	Hillenkamp, F., Laser Desorption Mass Spectrometry: Mechanisms Techniques and Applications, <i>Bordeaux Mass Spectrometry Conference Report</i> 11A:354-362 (1988).
	Karas, M. and Hillenkamp, F., Ultraviolet Laser Desorption of Proteins Up To 120,000 Daltons, <i>Bordeaux Mass Spectrometry Conference Report</i> 11A:416-417 (1988).
	Hutchens, T.W. and Allen, M., Differences in the Confrontational State of a Zinc-finger DNA-binding Protein Domain Occupied by Zinc and Copper Revealed by Electrospray Ionization Mass Spectrometry, <i>Rapid Communications in Mass Spec.</i> 6:469-473 (1992).
	Hutchens, T.W. and Yip, T.-T., New Desorption Strategies for the Mass Spectrometric Analysis of Macromolecules, <i>Rapid Communications in Mass Spec.</i> 7:576-580 (1993).
	Xiang, F. and Beavis, R.C., A Method to Increase Contaminant Tolerance in Protein Matrix-assisted Laser Desorption/Ionization by the Fabrication of Thin protein-doped Polycrystalline Films, <i>Rapid Communications in Mass Spec.</i> 8:199-204 (1994).
	Mock, K.K. et al., Sample Immobilization Protocols for Matrix-assisted Laser Desorption Mass Spectrometry, <i>Rapid Communications in Mass Spec.</i> 6:233-238 (1994).
	Speir, J.P. and Amster, J., Substrate-assisted Laser Desorption of Neutral Peptide Molecules, <i>Analytical Chemistry</i> 64:1041-1045 (1992).
<i>Y</i>	Yip, T.-T. and Hutchens, T.W., <i>Protein Expression and Purification</i> 2:355-362 (1991).

EXAMINER	DATE CONSIDERED
<i>Alexander</i>	<i>2/8/99</i>

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.